

August 28, 2019

Arcelor Mittal USA, Inc.  
250 W US Highway 12  
Burns Harbor, IN 46304-9745

Work Order No.: 19H1391

Re: NPDES Parameters

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 6 sample(s) on 8/22/2019 9:50:00AM for the analyses presented in the following report as Work Order 19H1391.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Ron Misiunas, Division Manager, at [ron.misiunas@microbac.com](mailto:ron.misiunas@microbac.com).

Sincerely,  
Microbac Laboratories, Inc.



Carey Gadzala  
Project Manager

**WORK ORDER SAMPLE SUMMARY**

**Date:** *Wednesday, August 28, 2019*

**Client:** Arcelor Mittal USA, Inc.  
**Project:** NPDES Parameters  
**Lab Order:** 19H1391

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19H1391-01	011-Composite	011	08/21/2019 00:00	8/22/2019 9:50:00AM
19H1391-02	011-Grab	011	08/22/2019 00:00	8/22/2019 9:50:00AM
19H1391-03	001-Composite	001	08/21/2019 00:00	8/22/2019 9:50:00AM
19H1391-04	001-Grab	001	08/22/2019 00:00	8/22/2019 9:50:00AM
19H1391-05	002-Composite	002	08/21/2019 00:00	8/22/2019 9:50:00AM
19H1391-06	002-Grab	002	08/22/2019 00:00	8/22/2019 9:50:00AM

**CASE NARRATIVE****Date:** *Wednesday, August 28, 2019***Client:** Arcelor Mittal USA, Inc.**Project:** NPDES Parameters**Lab Order:** 19H1391

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Report has been reissued to include Free Cn results for Outfalls 001 and 011. 8/28/19

## Analytical Results

Date: *Wednesday, August 28, 2019*

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	19H1391-01
<b>Client Project:</b>	NPDES Parameters	<b>Sampled:</b>	08/21/2019 0:00
<b>Client Sample ID:</b>	011-Composite	<b>Received:</b>	08/22/2019 9:50
<b>Sample Description:</b>	011		
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: <b>SM 4500-CN C/E-1999</b>				Analyst: <b>ABG</b>			
										Prep Date/Time: <b>08/22/2019 10:45</b>
<b>Total Cyanide</b>										
Cyanide, Total	ejj	A	<b>0.0054</b>	0.0020	0.0050		mg/L	1	08/22/2019 14:54	
			Method: <b>SW-846 9014</b>				Analyst: <b>AJR</b>			
										Prep Date/Time: <b>08/27/2019 12:44</b>
<b>Free Cyanide</b>										
Free Cyanide		A	<b>0.0065</b>		0.0062		mg/L	1	08/27/2019 13:21	
			Method: <b>EPA 350.1 Rev 2.0</b>				Analyst: <b>ABG</b>			
										Prep Date/Time: <b>08/22/2019 13:55</b>
<b>Nitrogen, Ammonia as N</b>										
Nitrogen, Ammonia (As N)	ei	A	<b>0.47</b>	0.054	0.10		mg/L	1	08/22/2019 14:30	
			Method: <b>EPA 420.4 Rev 1.0</b>				Analyst: <b>ABG</b>			
										Prep Date/Time: <b>08/22/2019 10:40</b>
<b>Total Phenolics</b>										
Phenolics, Total Recoverable	ejj	A	<b>0.0099</b>	0.0060	0.010		mg/L	1	08/22/2019 17:02	
			Method: <b>SM 2540 D-1997</b>				Analyst: <b>KMT</b>			
										Prep Date/Time: <b>08/22/2019 10:49</b>
<b>Total Suspended Solids</b>										
Total Suspended Solids	ejj	A	<b>1.5</b>	1.0	1.0		mg/L	1	08/22/2019 12:30	

## Analytical Results

Date: Wednesday, August 28, 2019

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	19H1391-02
<b>Client Project:</b>	NPDES Parameters	<b>Sampled:</b>	08/22/2019 0:00
<b>Client Sample ID:</b>	011-Grab	<b>Received:</b>	08/22/2019 9:50
<b>Sample Description:</b>	011		
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 1664B				Analyst: KMT			
<b>Oil &amp; Grease (HEM) by SPE</b>										
Prep Date/Time: 08/22/2019 07:35										
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	08/22/2019 14:12	

## Analytical Results

Date: *Wednesday, August 28, 2019*

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	19H1391-03
<b>Client Project:</b>	NPDES Parameters	<b>Sampled:</b>	08/21/2019 0:00
<b>Client Sample ID:</b>	001-Composite	<b>Received:</b>	08/22/2019 9:50
<b>Sample Description:</b>	001		
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed		
			Method: <b>SM 4500-CN C/E-1999</b>				Analyst: <b>ABG</b>				
										Prep Date/Time: <b>08/22/2019 10:45</b>	
<b>Total Cyanide</b>											
Cyanide, Total	ejj	A	<b>0.0045</b>	0.0020	0.0050		mg/L	1	08/22/2019 14:56		
			Method: <b>SW-846 9014</b>				Analyst: <b>AJR</b>				
										Prep Date/Time: <b>08/27/2019 12:44</b>	
<b>Free Cyanide</b>											
Free Cyanide		A	<b>ND</b>		0.0062		mg/L	1	08/27/2019 13:23		
			Method: <b>EPA 350.1 Rev 2.0</b>				Analyst: <b>ABG</b>				
										Prep Date/Time: <b>08/22/2019 13:55</b>	
<b>Nitrogen, Ammonia as N</b>											
Nitrogen, Ammonia (As N)	ei	A	<b>0.33</b>	0.054	0.10		mg/L	1	08/22/2019 14:32		
			Method: <b>EPA 420.4 Rev 1.0</b>				Analyst: <b>ABG</b>				
										Prep Date/Time: <b>08/22/2019 10:40</b>	
<b>Total Phenolics</b>											
Phenolics, Total Recoverable	ejj	A	<b>0.014</b>	0.0060	0.010		mg/L	1	08/22/2019 17:04		
			Method: <b>SM 2540 D-1997</b>				Analyst: <b>KMT</b>				
										Prep Date/Time: <b>08/22/2019 10:49</b>	
<b>Total Suspended Solids</b>											
Total Suspended Solids	ejj	A	<b>2.2</b>	1.0	1.0		mg/L	1	08/22/2019 12:30		

## Analytical Results

Date: *Wednesday, August 28, 2019*

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	19H1391-04
<b>Client Project:</b>	NPDES Parameters	<b>Sampled:</b>	08/22/2019 0:00
<b>Client Sample ID:</b>	001-Grab	<b>Received:</b>	08/22/2019 9:50
<b>Sample Description:</b>	001		
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 1664B				Analyst: KMT			
Oil & Grease (HEM) by SPE										
Prep Date/Time: 08/22/2019 07:35										
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	08/22/2019 14:12	

## Analytical Results

Date: *Wednesday, August 28, 2019*

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	19H1391-05
<b>Client Project:</b>	NPDES Parameters	<b>Sampled:</b>	08/21/2019 0:00
<b>Client Sample ID:</b>	002-Composite	<b>Received:</b>	08/22/2019 9:50
<b>Sample Description:</b>	002		
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: <b>SM 4500-CN C/E-1999</b>			Analyst: <b>ABG</b>		
Prep Date/Time: <b>08/22/2019 10:45</b>									
<b>Total Cyanide</b>									
Cyanide, Total	ejj	A	<b>ND</b>	0.0020	0.0050	U	mg/L	1	08/22/2019 15:01

## Analytical Results

Date: Wednesday, August 28, 2019

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	19H1391-06
<b>Client Project:</b>	NPDES Parameters	<b>Sampled:</b>	08/22/2019 0:00
<b>Client Sample ID:</b>	002-Grab	<b>Received:</b>	08/22/2019 9:50
<b>Sample Description:</b>	002		
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA 1664B					Analyst: KMT				
<b>Oil &amp; Grease (HEM) by SPE</b>									
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	08/22/2019 14:12

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**ANALYTE TYPES: (AT)**

A, B = Target Analyte

I = Internal Standard

M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

**Revised**  
**8/28/2019**

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**QC SAMPLE IDENTIFICATIONS**

BLK = Method Blank

DUP = Method Duplicate

BS = Method Blank Spike

MS = Matrix Spike

ICB = Initial Calibration Blank

CCB = Continuing Calibration Blank

CRL = Client Required Reporting Limit

PDS = Post Digestion Spike

QCS = Quality Control Standard

ICSA = Interference Check Standard "A"

ICSAB = Interference Check Standard "AB"

BSD = Method Blank Spike Duplicate

MSD = Matrix Spike Duplicate

ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification

OPR = Ongoing Precision and Recovery Standard

SD = Serial Dilution

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**CERTIFICATIONS (Certs)**

*Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.*

d Illinois EPA drinking water, wastewater and solid waste analysis (#200064)

i Kansas Dept Health &amp; Env. NELAP (#E-10397)

j Kentucky Wastewater Laboratory Certification Program (#108202)

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**FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)****MDL:** Minimum Detection Limit**RL:** Reporting Limit**RPD:** Relative Percent Difference**U:** The analyte was analyzed for but was not detected above the reported quantitation limit. The quantitation limit has been adjusted for any dilution or concentration of the sample.

**Cooler Receipt Log**

Cooler ID: Default Cooler

**Revised**  
**8/28/2019****Comments**

No times

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**Cooler Inspection Checklist**

Ice Present or not required?	Yes
Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes
Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes
Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes
Sample type identified on COC?	Yes
Correct type of Containers Received	No
Correct number of containers listed on COC?	Yes
Containers Intact?	Yes
COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes
Sample labels match COC (Name, Date & Time?)	Yes
Samples arrived within hold time?	Yes
Correct preservatives on COC or not required?	Yes
Chemical preservations checked or not required?	Yes
Preservation checks meet method requirements?	Yes
VOA vials have zero headspace, or not recd.?	Yes

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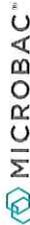
**Microbac Laboratories, Inc.**250 West 84<sup>th</sup> Drive | Merrillville, IN 46410 | 800.536.8379 p | 219.769.8378 p | 219.769.1664 f | [www.microbac.com](http://www.microbac.com)

# RUSH!

CHAIN OF CUSTODY-RECORD

Number **152313**

Instructions on back



Lab Report Address

Client Name: *Arcelor Mittal*

Address:

City, State, Zip: *Terris, IN*

Contact:

Telephone No.:

Send Report via:  Mail  Fax  e-mail (address)

Project:

Location:

PO No.:

Send Invoice via:  Mail  Fax  e-mail (address)

Compliance Monitoring?  Yes  No

Agency/Program

Sampled by (PRINT): *Warren Howard*

Sampler Signature:

Sampler Phone No.:

\* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)  
\*\* Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

### REQUESTED ANALYSIS

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	Analysis	Additional Notes
011	8/21/19		1		C		Ammonia	19H1391 01
011	8/22/19		3		G			02
001	8/21/19		1		C			03
001	8/22/19		3		G			04
002	8/21/19		1		C			05
002	8/22/19		2		G			06

Possible Hazard Identification

Hazardous  Non-Hazardous  Radioactive

Sample Disposition  Dispose as appropriate  Return  Archive

Comments

Relinquished By (signature) *[Signature]*

Date/Time 8/22/19 0840

Received By (signature) *[Signature]*

Date/Time 8/22/19 0840

Relinquished By (signature) *[Signature]*

Date/Time 8/22/19 0950

Received By (signature) *[Signature]*

Date/Time

Relinquished By (signature) *[Signature]*

Date/Time 8/22/19 0950

Received By (signature) *[Signature]*

Date/Time 8/22/19 0950